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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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|-----------------|-------------|----------------------|---------------------|------------------|

10/708,779

03/25/2004

Wen-Kuo Lin

SISP0010USA

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NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER

KASSA, YOSEF

ART UNIT

PAPER NUMBER

2624

NOTIFICATION DATE

DELIVERY MODE

12/27/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com
Patent.admin.uspto.Rcv@naipo.com
mis.ap.uspto@naipo.com.tw

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/708,779 | | LIN, WEN-KUO | |
| | Examiner | | Art Unit | |
| | YOSEF KASSA | | 2624 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (U.S. Patent 6,400,849), and further in view of Wu et al (U.S. Patent 6,577,778).

With regard to claim 1, Lee discloses inputting the (digital) picture (refer to col. 53-56); generating a block of the digital picture from the digital picture (refer to col. 5, lines 24-26);

creating two weighting matrices (refer to col. 6, lines 24-29, that is , image A and image B); and

multiplying the block of the digital picture by the weighting matrices (refer to col. 7, lines 65-col. 8, lines 5). While Lee discloses processing image data in PC, Lee does not disclose expressly for processing a digital image data. However, at the same field of endeavor, Wu discloses this feature (refer to col. 2, lines 51-54). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching Wu's digital image processing system into Lee's system. The suggestion/motivation for doing so would have been to provide picture of digital image data adjusting the picture quality (refer to col. 2, lines

52-56 of Wu). Therefore, it would have been obvious to combine Wu with Lee to obtain the invention as specified in claim 1.

With regard to claim 2, Lee fail to discloses filtering the digital picture with interpolation filters to generate the block of the digital picture. However, at the same field of endeavor, Wu discloses this feature (please refer to col. 2, lines 52-56). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching Wu's image interpolation system into Lee's system. The suggestion/motivation for doing so would have been to provide interpolation function adjust sharpness of the image (refer col. 2, lines 60-65 of Wu). Therefore, it would have been obvious to combine Wu with Lee to obtain the invention as specified in claim 2.

With regard to claim 3, Lee discloses wherein the block of the digital picture generated in step is stored in a block buffer (refer to col. 4, lines 61-65).

With regard to claim 4, Lee discloses wherein step comprises inputting the digital picture to a source buffer (refer to col. 4, lines 66-col. 5, lines 4).

With regard to claim 8, Lee discloses multiplying the block of the digital picture by one of the weighting matrices to generate intermediate data; and multiplying the intermediate data by the other weighting matrix to generate output data (refer to col. 8, lines 1-12).

With regard to claim 9, Lee discloses storing the intermediate data in an intermediate buffer; and storing the output data in an destination buffer (Refer to col. 4, lines 61-65).

Claim 10 is similarly analyzed and rejected the same as claim 8.

Claim 11 is similarly analyzed and rejected the same as claims 1, 3 and 8..

With regard to claim 12, Lee discloses a plurality of first multipliers for multiplying each data of the block with a coefficient; a plurality of first adders each connected with a group of first multipliers for adding up numbers generated by the group of first multipliers; a plurality of second multipliers each connected with a first adder for multiplying number generated by the first adder with a coefficient; and a second adder connected with the second multipliers for adding up numbers generated by the plurality of second multipliers (refer to col. 7, lines 65-col. 8, lines 13).

Claim 13 is similarly analyzed and rejected the same as claim 2.

With regard to claim 14, Lee discloses wherein the scaling device further comprises a block buffer connected with the interpolation filters for storing the block of the digital picture (refer to col. 2, lines 65-col. 3, lines 8).

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Section IV.C, reads as follows:

While abstract ideas, natural phenomena, and laws of nature are not eligible for patenting, methods and products employing abstract ideas, natural phenomena, and laws of nature to perform a real-world function may well be. In evaluating whether a claim meets the requirements of section 101, the claim must be considered as a whole to determine whether it is for a particular application of an abstract idea, natural phenomenon, or law of nature, rather than for the abstract idea, natural phenomenon, or law of nature itself.

For claims including such excluded subject matter to be eligible, the claim must be for a practical application of the abstract idea, law of nature, or natural phenomenon. Diehr, 450 U.S. at 187, 209 USPQ at 8 ("application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection."); Benson, 409 U.S. at 71, 175 USPQ at 676 (rejecting formula claim because it "has no substantial practical application").

To satisfy section 101 requirements, the claim must be for a practical application of the Sec. 101 judicial exception, which can be identified in various ways:

The claimed invention "transforms" an article or physical object to a different state or thing.

The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below.

Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 1 recites the mere manipulation of data or an abstract idea, or merely solves a mathematical problem without a limitation to a practical application. A practical application exists if the result of the claimed invention is "useful, concrete and tangible" (with the emphasis on "result")(Guidelines, section IV.C.2.b). A "useful" result is one that satisfies the utility requirement of section 101, a "concrete" result is one that is "repeatable" or "predictable", and a "tangible" result is one that is "real", or "real-world", as opposed to "abstract" (Guidelines, section IV.C.2.b)). Claim 1 merely manipulates data without ever producing a useful, concrete and tangible result. That is, the limitations of Claim 1 only provide the limitation of calculating or measure image quality for correction source image, Claim 1 does not perform a physical transformation of calculated or measured data outside the computer, for example.

In order to for the claimed product to produce a "useful, concrete and tangible" result, recitation of one or more of the following elements is suggested:

- The manipulation of data that represents a physical object or activity transformed from outside the computer.

- A physical transformations outside the computer, for example in the form of pre or post computer processing activity.
- A direct recitation of a practical application;

Applicant is also advised to provide a written explanation of how and why the claimed invention (either as currently recited or as amended) produces a useful, concrete and tangible result.

Other Prior Art Cited

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. (5923775), (6442203), (5473384) and (6462768).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF KASSA whose telephone number is (571) 272-7452. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communication and (571) 273-8300 for after Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600.

Application/Control Number:
10/708,779
Art Unit: 2624

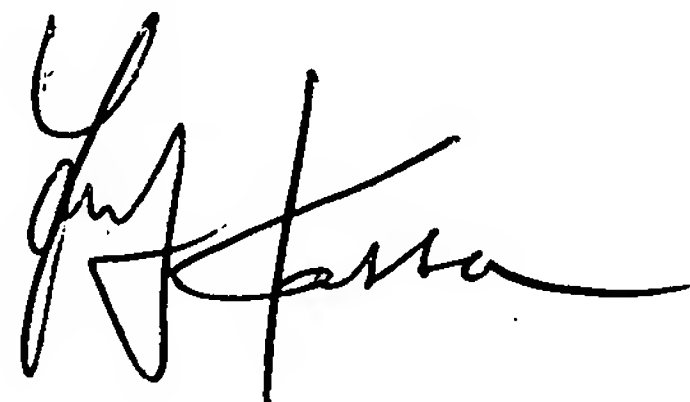
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/19/2007.

YOSEF KASSA
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Yosef Kassa', written in a cursive style.